compact Lie group and X is locally compact. We exploit this phraseology by noting that in a preprint [12], Hattori and Yoshida have shown a Hattori-Yoshida theorem is true for principal K x T bundles where T is a torus and K is a discrete abelian group and G is a finite group.

The main goal of this section is to examine to what extent Hattori-Yoshida theorems are true for the principal bundle lifting problem and the lifting problem. We shall show that a Hattori-Yoshida theorem for principal bundle liftings holds for regular coverings and a Hattori-Yoshida theorem for lifting problems holds for coverings. We shall show however that Hattori-Yoshida theorems are not true in general for lifting and principal bundle lifting problems

First we consider the proof of Theorem 1 in light of the lifting problem. We can easily see that both lemma 2 and lemma 3 are valid for the lifting problem when the phrase "fibre homotopy equivalent" is replaced by "fibre bundle equivalents" and "fibration" by "fibre bundle." Thus lemma 3 is a Hattori-Yoshida theorem for liftings of a free action. Similarly, lemmas 2 and 3 are valid in the context of the principal fibre bundle lifting problem.

Only the last part of the proof of theorem 1 breaks down for fibre bundles since we change the homeomorphism type of the fibres. In fact we have the following situation.